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CONSUMER BEHAVIOR

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COGNITIVE CONSISTENCY AND CONSUMER BEHAVIOR

The origins of most social science theories can be traced to the unitary doctrines of the nineteenth century. Historically the analysis of consumer behavior developed around classical models of economic man. Whereas the roots of many analyses of social phenomena such as crowd or group behavior lie in doctrines focusing on the basic irrationality of man, the obvious relevance of consumption to economics led to a traditional emphasis on the logical aspects of consumer behavior within the framework of microeconomic theory. More recently, many researchers interested in consumer behavior have adopted a more behavioral, less rationalistic orientation. Such a view portrays the consumer from a psychological perspective--as a complex but limited and fallible processor of information operating in a complicated communication environment.

In developing such psychological models, a family of concepts called cognitive consistency theories may prove very powerful. These theories postulate, not logical, but psycho-logical operations. In this sense they may provide a valuable supplement to the more rationalistic treatments of consumer behavior. While consistency theories have received some attention with regard to consumer processes, their potential has not been generally recognized. This discussion briefly reviews three of the major consistency approaches and notes some of the more promising relevant research evidence from the social psychology, communication, and marketing literatures. The goal is to establish the relevance of cognitive consistency to consumer behavior and to point out some directions for further research.

Cognitive consistency is perhaps most relevant to consumer behavior

in terms of attitude theory. The basic notion behind all of the consistency concepts is that people are motivated to maintain a state of psychological harmony within the system of beliefs which make up their attitude about a given issue or situation. The various approaches to cognitive consistency differ mostly in the manner in which they attempt to characterize the psychological processes involved in attaining this equilibrium.

BALANCE THEORY

One line of research dealing with cognitive consistency is closely associated with the pioneering work of Fritz Heider. Heider (1946, 1958) was concerned mainly with our perception of the social world. Various perceptual constancies received considerable attention from the early Gestalt psychologists. For instance, most people see the lines below not as a series of eight vertical lines but as a set of four pairs of vertical lines:



It seems that we are biased toward creating such perceptual unity or harmony. Heider's contribution was to extend this thinking to the way people perceive social events.

The social events of principal interest to Heider consisted of three elements in a given person's experience, the person himself (symbolized P), some other person (symbolized O), and some event, idea, or object (symbolized X). Two types of beliefs relating these cognitive elements in the P-O-X system were postulated. Each type may be positive or negative. Sentiment relations refer to beliefs that two elements

are connected by liking (+) or disliking (-), favorable feelings (+) or unfavorable (-) feelings, or some other evaluative relation. Unit relations refer to beliefs that two elements belong together (+) or do not belong together (-) in some sense, e.g., P buys X or O owns X. It was Heider's purpose to explore any systematic tendencies people possess in cognitively organizing a P-O-X system. He proposed that people attempt to maintain a psychological state called balance in which there is no strain or stress in a system. A system is balanced if all three of the signs of the relations between P, O, and X are positive or if any two signs are negative and one is positive. If only one sign is negative and the other two are positive or if all three are negative, a system is imbalanced. Thus, the system P buys X, P admires O, and O buys X is balanced whereas P buys X, P admires O, but O never buys X is imbalanced. Heider postulated that people attempt to restore balance in an imbalanced system by changing the signs of the relations. In the imbalanced system just mentioned, balance could be obtained by changing the perceived relation between P and X so that P never buys X, P admires O, and O never buys X.

Heider's formulation of balance theory has proven valuable in stimulating research. Cartwright and Harary (1956) formalized the theory using mathematical graph theory and extended it to relations between N elements. This work gives a general principle for determining balance: Balance exists if the product of all the signs is positive, imbalance if the product is negative.

Empirical support for the notion of balance has been obtained from two types of studies. The first simply presents a subject with

hypothetical relationships and asks him to rate the pleasantness of each one. It is predicted that balanced relationships will be more pleasant. Jordan (1953) gave subjects 64 hypothetical P-O-X situations, half of which were balanced and half unbalanced. In general, balanced relationships were in fact judged more pleasant than imbalanced ones. However, this result was qualified by several complicating factors, among them the tendency of subjects to always rate a situation containing a negative P-O sentiment relation as unpleasant even if the relationship were balanced. Price, Harburg, and Newcomb (1966) asked subjects to imagine several relationships in which either positive or negative sentiment relations existed between actual people whom they liked or disliked (e.g., You like O, You dislike Q, imagine O dislikes Q). Again balanced relationships were rated more pleasant, but only if there was not a negative sentiment relation between P and O. As in Jordan's study, balance was not sufficient to produce pleasantness in the face of a negative P-O sentiment relation. Rodrigues (1967), in a replication of Jordan's study, points to two factors in addition to balance which affect pleasantness ratings, a positivity effect as noted above such that greater pleasantness results from a positive as opposed to a negative P-O relation and an agreement effect such that greater pleasantness results from situations in which P and O agree about X. Although Stroebe, Thompson, Insko, and Reisman (1970) argue that balance theory can itself account for positivity and agreement effects, it seems clear that Heider's original formulation does not completely explain these results.

The second type of study conducted to test balance theory gives the subject a set of situations and then asks him questions about the

relations or requires him to reproduce them. Burnstein (1967) administered a questionnaire to students immediately before the 1964 Presidential election containing a series of situations involving hypothetical relations among two people and their feelings about a candidate. Students were then asked which situations were likely to change and how. The results indicated that initially balanced situations were seen as less likely to change. As to what changes would occur, increases in positive relations in excess of the number needed for balance were predicted by the subjects. These predictions also favored changes in interpersonal relations as opposed to feelings about a candidate. Subjects evidently expect balance, positivity, and a preference for interpersonal changes.

Zajonc and Burnstein (1965) tested the ability of subjects to learn balanced versus imbalanced situations. If imbalanced relationships are stressful, they should be harder to learn. The relations involved two people and their feelings about either integration (important issue) or Newsweek (unimportant issue). For instance, Dick approves of Newsweek, Don approves of Newsweek, and Dick dislikes, Don or Tom approves of integration, Ted disapproves of integration, and Tom likes Ted. Subjects were presented each relation one at a time and had to remember whether it was positive or negative. Zajonc and Burnstein found that unbalanced situations were more difficult to learn but only when the issue was important (integration). In addition, negative relations were more difficult to learn, another positivity finding. Other studies (e.g., Gerard and Fleischer, 1967) indicate the effects of balance may be complicated still. It seems that perhaps balanced situations may be remembered more easily with long-term memory and imbalanced situations

with short-term memory, or even that some situations are intrinsically more interesting and easier to remember because of their imbalance.

Taken together these studies demonstrate that balance does seem to be an important force in social perception, though the principle is not in itself a theory of social perception. The relevance of the basic notion of balance for consumer behavior lies in focusing attention on how the particular sentiment or unit relation linking the consumer and the product fits in with his entire system of beliefs arising in connection with the product. The emphasis of the theory on interpersonal relations might also be fruitful in exploring the effects of social context on product evaluations.

For work in consumer behavior, however, it may be desirable to have a more explicit formulation of balance possessing a greater predictive power. Fortunately Heider's work has directly stimulated research along these lines. Rosenberg (1956, 1960a, 1960b) defines attitudes as pro or con feelings toward objects of affective significance. Attitudes possess a structure composed of an affective component and a cognitive (belief) component. According to Rosenberg there exists a homeostatic tendency to maintain consistency between these components. Because of this tendency, a mathematical index can be calculated for predicting attitudes. Two variables are involved, the importance of the attitude object in leading to or blocking valued states (instrumental relations or beliefs) and the affect felt toward a given value. Figure 1 shows a hypothetical attitude structure concerning "non-phosphate detergents."

Insert Figure 1 about here.

To compute Rosenberg's index, it is necessary to obtain ratings of the affect associated with each value and the strength of the instrumental relation linking the value and the attitude object. Each value rating is then multiplied by its instrumentality and these products are summed to form the index of attitude. In our example (see Figure 1), the person's overall attitude, based on the hypothetical ratings given in parentheses, is predicted to be -4.

The affective-cognitive consistency side of this approach was later elaborated more extensively by Rosenberg and Abelson (Abelson, 1959; Abelson and Rosenberg, 1958; Rosenberg and Abelson, 1960). The later version of the theory deals with cognitive elements, the objects of human thought, and the cognitive relations between these elements. Both cognitive elements and relations can be either positive, negative, or null (neutral). No distinction is made between affective or instrumental relations, both are allowed. The conceptual arena refers to the set of all cognitive elements which are relevant to a given attitude object. It may be thought of as a network of cognitive bands, where a band is two cognitive elements connected by a relation. Figure 1 may be interpreted in these terms since each instrumental relation forms a band with an element and the attitude object. Conceptual arenas have the property of being balanced or imbalanced. Balance is achieved when all of the cognitive bands involve either elements of the same sign linked with a positive relation or elements of unlike sign linked with a negative relation. Notice that balance is defined in terms of signs, without reference to any numerical values. As before, balance is associated with a positive product and imbalance a negative product. Note that our

example in Figure 1 is imbalanced. Abelson and Rosenberg further posit explicit "psycho-logical" rules which govern how a person thinks about elements in his conceptual arena. One rule states, for instance, that if A is positively related to B and B is negatively related to C, then A is negatively related to C. A conceptual arena is balanced if no application of these rules leads to the discovery of a negative cognitive band. However, Runkel and Peizer (1968), employing Lambert's (1966) set theoretic version of the rules of this psycho-logic, have shown that there is no need to distinguish any distinct psycho-logic from an ordinary two-valued logic. The theory must be extended to multidimensional response spaces to handle this criticism.

A unique feature of Rosenberg and Abelson's theory is that imbalance is predicted to create a pressure toward change only if the individual thinks about the imbalance. Imbalance may be resolved in one of three general ways. A person may change the sign of one or more cognitive elements, change the sign of one or more cognitive relations, or stop thinking about the imbalance. Abelson (1959) specifies four means by which changing the sign of an element or relation may be accomplished: denial, bolstering, transcendence, and differentiation. The affective sign may be simply denied or changed to its opposite. The imbalance in the structure shown in Figure 1 may be resolved by denying that non-phosphate detergent really leads to less pollution. An element in an imbalanced cognitive band may be bolstered by relating it to other elements in a balanced way. If curbing pollution is linked to political fads, increased government spending, etc., imbalance should decrease. Imbalance may be transcended by placing both elements in some super-

ordinate classification. Curbing pollution (+) and non-phosphate detergent (-) may be combined into the larger element "popular gimmick" (-) or "social responsibility" (+), of which only the former would resolve the imbalance in our example. Finally, a very common method of imbalance reduction is to differentiate an element into two different elements which are balanced. Thus our hypothetical person may decide that only air pollution needs curbing (+) while water pollution does not (-) and that non-phosphate detergent (-) leads to (+) the latter, a -,+,- band, but not the former, a -,-,+ band.

Attitude change to accomplish imbalance reduction follows one of two sequences: affective change followed by cognitive change or cognitive change followed by affective change. Using posthypnotic suggestions, Rosenberg (1960a) instructed subjects to feel differently about an attitude object. He found that this affective change also produced change in cognitive instrumental linkages. If, for example, a subject's feeling about blacks living in white neighborhoods was changed, the relations between integrating blacks and various values changed too. Carlson (1956) demonstrated the reverse sequence by convincing students that allowing blacks to move into white neighborhoods leads to values such as equal opportunity, and showing that this cognitive change led to affective change regarding integration.

Another contribution of the Rosenberg and Abelson theory is to hypothesize that imbalance reduction follows the easiest possible path. That is, balance tends to be restored with the fewest number of operations. Support for this contention was gained (Rosenberg and Abelson, 1960) by having subjects play the role of a department store manager where

the role was defined by various cognitive elements and relations, e.g., high sales is a positive cognitive element. The total structure represented by these bands was imbalanced in different ways for different subjects. When subjects were asked to evaluate three research reports which had the effect of restoring balance, they favored the report which resolved their particular imbalance in the fewest number of changes. However, these particular experiments also revealed the operation of other factors, a positivity effect and a tendency toward maximizing gain and minimizing loss (subjects did not reduce imbalance in a way that would reduce sales). This latter factor led Rosenberg and Abelson (1960) to postulate a "dual force conception" which is extremely important for consumer behavior. Balance represents one force on a cognitive band and hedonic satisfaction another. In some cognitive bands these forces may conflict. Rosenberg (1965) provides a valuable discussion of this problem. He argues that imbalance will be less likely to result in change for a hedonic cognitive band than an antihedonic one. For example, the imbalance in "My mother-in-law (-) supports (+) my plan to buy a new car (+)" is less stressful than in "The distinguished firm of Schlag and Sons (+) have put on the market (+) a completely worthless sphygmomanometer (Rosenberg, 1965, p. 133)." Rosenberg (1965) also presents experimental data supporting the prediction that hedonic imbalance is less stressful than antihedonic imbalance. It may be possible, however, to account for this hedonic force within balance theory by employing the self as a separate cognitive element. When the self (+) is associated with (+) a motive-frustrating state of affairs (-), imbalance is greater than when it is associated with a rewarding state (+), because another imbalanced band has been added to

the structure in the former case (Rosenberg and Abelson, 1960, p. 146). The above example then becomes "My mother-in-law (-) supports (+) my plan to buy a new car (+)" and "I (+) am associated (+) with this benefit (+)," an imbalanced and a balanced band. The worthless sphygmomanometer band, however, is coupled with an unbeneficial self-association, which creates two imbalances instead of one. It is perhaps worth noting that these authors attribute much of the interest in dissonance theory to the fact that it usually analyses these doubly stressful antihedonic imbalances involving the self. This entire problem is worth considerable attention from consumer behavior researchers, for many of the important imbalances in this area are of the conflicting hedonic variety. Is "Non-phosphate detergent (-) leads to (+) curbing pollution (+)" really imbalanced?

As already discussed, the earlier work on Rosenberg and Abelson's theory postulated a mathematical model for predicting attitudes. This model has attracted some attention from consumer behavior researchers. Sheth and Talarzyk (1972) compared measures derived from this model with brand preference and found only a very weak association. Such studies, however, have been oriented more toward an expectancy \times value framework for attitude research (see Cohen, Ahtola, and Fishbein, in press). Full application of the Rosenberg and Abelson work within a balance theory framework awaits further research.

To suggest the potential of this research, a study by Insko, Blake, Cialdini, and Mulaik (1970) provides a good example. A survey was administered in which cognitive elements and statements relating these elements to some aspects of birth control were rated, the former on a

good-bad scale, the latter on a true-false scale. Respondents were women in a public housing project. The data was analyzed by means of factor analyses to determine differences between users and non-users of contraceptives. Cognitive consistency seemed to be greater for users than non-users. The data indicated several requirements for both control campaigns including educating the husband as well as the wife and creating cognitive links between birth control and family goals.

While attitudes are certainly a crucial aspect of consumer behavior, the nature of the relationship between attitudes and behavior is an open question (see Calder and Ross, in press; Fishbein and Ajzen, 1972). Thus, before leaving balance theory, we should describe an extension of Rosenberg and Abelson's theory explicitly incorporating behavior as a variable. Insko and Schopler (1967) present a model treating behavior, an actual goal directed activity, as well as cognitive elements and relations. All three are classified as either positive or negative. Insko and Schopler contend that people try to maintain not only affective-cognitive consistency but triadic consistency too. Consider a person who enjoys smoking (affect) and who smokes two packs of cigarettes a day (behavior). Now suppose he believes (cognition) that he should not be smoking for reasons of health. This triad is composed of a positively evaluated cognitive element, a negative cognitive relation, and a positive behavior. The product of the signs is negative, indicating triadic imbalance. Insko and Schopler predict some change in the triad to restore balance. It follows from this theory that behavior change can produce attitude change as well as that attitude change can cause behavior change. As we shall see, it is important in consumer behavior

research for a model to allow for both sequences.

CONGRUITY THEORY

The congruity model of cognitive consistency developed independently of balance theory, though it is certainly similar in spirit. Whereas Heider had been interested in social perception, congruity theory stemmed from Osgood, Suci, and Tannenbaum's (1957) work on the semantic differential as a measure of meaning. One result of this research was to find a general evaluative dimension of meaning which could be equated with attitude. From its inception, the model was oriented toward the changes in attitude produced by source effects (Tannenbaum, 1968, p. 54). Source effects involve a situation where a person has an attitude about a communication source and about an issue. The source then makes an assertion about the issue. How does this assertion affect both the attitude toward the source and the attitude toward the issue?

The theory (Osgood and Tannenbaum, 1955; Osgood, 1960; Tannenbaum, 1967) is stated in terms of communication sources and objects of judgment which are connected by either an associative assertion (e.g., likes, buys, praises) or a dissociative assertion (e.g., dislikes, refuses to buy, criticizes). While assertions have only two values, associative or dissociative, sources and objects can take on values ranging from +3 to -3 according to their semantic differential ratings. An example of the type of attitude structure we have in mind is diagrammed in Figure 2 in a manner introduced by Brown (1962). In this example (see Figure 2a)

Insert Figure 2 about here.

the source is the magazine Consumer Reports, which has been previously evaluated positively (+2) by our respondent, and the object of judgment is a certain automobile make previously evaluated as slightly negative (-1). Consumer Reports publishes a story recommending that people buy this automobile, an associative assertion.

According to the theory, a state of congruity exists whenever a source and an object with the same numerical evaluation are associated and whenever a source and an object with opposite evaluations (e.g., +2 and -2) are dissociated. The lack of congruity, or incongruity, creates a pressure to change both the source and object attitudes to a congruent state. This pressure, P , is postulated to be different for the source and the object. It equals the amount each one would have to change alone to bring about congruity. In our example (see Figure 2a), the pressure on Consumer Reports is -3, a change of three units in the minus direction would produce congruity. Similarly, the pressure on the automobile attitude is +3. (If the assertion were dissociative, the pressures would be -1 and -1 respectively.) When incongruity exists, both the source (S) and object (O) undergo pressure to change. The theory assumes, however, that the actual change depends on how extreme the attitude value is, a more extreme attitude changes proportionately less. The following equation gives the change for the attitude object:

$$AC_O = \frac{|S|}{|O| + |S|} P_O + i + A,$$

where AC is the attitude change of the object, S is the absolute numerical value of the source attitude, O is the absolute numerical value of the object attitude, P_O is the pressure toward congruity on the object, and i and A are constants. Similarly, attitude change for the object is given

by:

$$AC_s = \frac{101}{101 + 1ST} P_s + i.$$

In short, attitudes change a certain proportion of the total distance required to create congruity, this proportion being determined by the relative extremity of the attitude. The two constants are corrections to the equations: i corrects for incredulity, the tendency to disbelieve a highly incongruent assertion (e.g., "The United States government has advocated that people buy Soviet made automobiles"). The incredulity constant takes the opposite sign as P , thereby reducing the amount of change necessary. The assertion constant builds in the assumption that the object of an assertion should change more than the source. It is positive for an associative assertion and negative for a dissociative assertion; it is determined empirically. Without bothering with the correction constants, we may calculate that in our example (see Figure 2b), attitude toward Consumer Reports should change -1 units and attitude toward the automobile should change +2 units. These changes would achieve congruity, a similarly evaluated source and object associated by an assertion.

We should note that incongruity need not necessarily lead to attitude change. Tannenbaum, Macaulay, and Norris (1966) have described several alternatives to attitude change as a means of reducing incongruity. A person can deny or distort the association between the source and object (e.g., "a prestige figure was paid to endorse a product"). Alternatively a person can bolster his attitude toward the concept by seeking new information or he can alter his attitude toward the source alone and maintain the same attitude toward the concept. Unlike balance theory,

these alternatives have not been emphasized.

Although congruity theory focuses on source effects, it can clearly be extended to the same situations as balance by treating more than one object and relation at a time. In fact it appears that balance theory is a subcase of congruity theory in that any situation which is imbalanced is also incongruent, though the converse is not necessary. It should be clear that even with its formalization congruity theory is probably of more narrow interest than balance theory. Notice also that the congruity approach calls for averaging the elements of a cognitive unit whereas Rosenberg's index employs a summation.

Research on congruity theory has yielded mixed results. Osgood and Tannenbaum (1955) found that the equations predicted the direction of attitude change better than the amount of change. Even more troublesome is Kerrick's (1959) finding that like sign attitudes when associated may change to become more extreme than either were separately. Recent research on congruity has tended to discard the mathematics of the theory, concentrating instead on its general implications. Tannenbaum (1966) demonstrated that attitude change toward an object does generalize to a source and to other objects connected to the source as well. In a review of this work, Tannenbaum (1968) explicitly recommends keeping the attitude change through communication aspect of the model separate from its status as a "general model of cognitive interaction." In view of the obvious importance of the source effect situation for consumer behavior, congruity theory could provide a valuable supplement to balance theory in just this connection.

DISSONANCE THEORY

The origins of dissonance theory probably lie in Gestalt psychology via the field theory approach of Kurt Lewin which postulated that changes in a person's life space could occur as a result of psychological tension. Like balance and congruity, dissonance is stated in terms of cognitive elements and relations (Festinger, 1957). Cognitive elements are defined much more loosely though. They may include any knowledge a person has about himself, his behavior, or his world. Cognitive elements may be perceived as related in one of two ways. If the existence of one element x does not follow from another element y (i.e., x implies not- y), the relation is dissonant; otherwise it is consonant. The cognition "I purchase non-phosphate detergent" is dissonant with the cognition "Non-phosphate detergent does not get clothes clean"--the one does not follow from the other.

Cognitive dissonance is supposed to create a noxious state of psychological tension in the individual. A person is thus motivated to reduce dissonance and to avoid events that would produce dissonance. The intensity of this motivation increases with the relative number of dissonant cognitions and their importance. Dissonance may be reduced by adding new cognitive elements favoring consonance or changing existing cognitions toward consonance. In our example, dissonance may be reduced by adding new cognitions such as "Non-phosphate detergents curb pollution" and "Non-phosphate detergent makes clothes smell fresh." Alternatively, the person may change his behavior ("I no longer purchase non-phosphate detergent") or his belief about cleaning power ("Non-phosphate detergent actually does get clothes clean").

Dissonance theory has not remained static since its introduction. A number of researchers have attempted to modify the theory, usually by specifying the conditions under which dissonance will or will not be aroused. Brehm and Cohen (1962) emphasized the role of commitment and volition in producing dissonance. More recently, Aronson (1968, 1969), Bramel (1968), and Collins (1969) have argued that dissonance is connected with violations of a person's self-concept. Aronson states perhaps the most general form of this argument. He characterizes dissonance as arising most clearly from a violation of strong expectancies. One of the strongest expectancies most people have is that their self-concept will remain positive. "Thus, at the very heart of dissonance theory, where it makes its clearest and neatest predictions, we are not dealing with any two cognitions; rather, we are usually dealing with the self-concept and predictions about some behavior. If dissonance exists it is because the individual's behavior is inconsistent with his self-concept (Aronson, 1969, p. 27)." Aronson goes on to cite as an example a study by Erlich, Guttman, Schonbach, and Mills (1957) showing that new car owners selectively expose themselves to ads for their car. To have bought a lemon would certainly violate most people's self-concepts.

Recall now our earlier discussion of a similar point in connection with Rosenberg and Abelson's theory: antihedonic imbalance was supposed to be greater than hedonic imbalance. Clearly Aronson is identifying dissonance with antihedonic imbalance. If one considers when either of these cases is likely to arise, it would seem that hedonic imbalance is more prevalent before a behavior is performed and antihedonic imbalance afterward. One does not often intend to do antihedonic things beforehand,

but may well be trapped by them later. You do not intend to buy a lemon but you may well find yourself with one. For this reason, it is not surprising that dissonance theory has proven especially powerful in analyzing the effects of having already performed a behavior. It is here that the greatest opportunity for antihedonic violations of self-expectancies exist.

In considering the relationship between attitudes and behavior, there are two possible causal sequences, attitudes may affect behavior or behavior may affect attitudes. It was argued in the above discussion that dissonance theory is more relevant to the effects of behavior on attitudes because of the greater likelihood in this case of antihedonic imbalance. Moreover, in many circumstances an individual cannot change, or even easily distort, his behavior (e.g., a person can't deny having smoked for twenty years. For both of these reasons, research has concentrated on how dissonance connected with having performed a behavior affects one's private attitudes.

In this vain Engel and Light have correctly commented on the significance of dissonance theory for consumer behavior: "do consumers ever become so committed (for instance, to a brand, a product, or a store) that they will become dissonant if their preference is challenged? The authors are of the opinion that such commitment indeed does occur for two different reasons: (1) loyalty to a product or a store can develop because one alternative becomes ego-involved and is, in effect, an extension of the consumer's self-concept; and (2) consumers establish buying routines or habits for the purpose of greater shopping efficiency. Loyalty from this latter source can represent genuine commitment (1968, p. 189)." In terms of the more recent versions of dissonance theory,

we might add that loyalty through involvement of the self-concept should be most likely to create the possibility of dissonance.

Although many consumer behaviors might be examined by dissonance theory, perhaps the most salient is the purchase decision. In many cases the act of purchase may be closely identified with consumption itself. One line of dissonance research which is particularly relevant to the effects of purchasing deals with free choice situations. Consider a person wishing to buy a new car who cannot decide between a Pinto and a Vega. Finally he makes a decision, buying, say, the Vega. Dissonance theory predicts that, unless one considers himself a "schnook" (Aronson, 1969, p. 27), once the decision is made the person's evaluation of the Pinto will decrease and the evaluation of the Vega will increase. This revaluation occurs because the positive aspects of the rejected alternative (the Pinto) are now dissonant with the purchase behavior, as are the negative aspects of the chosen alternative (the Vega). Several studies have tested this prediction. Brehm (1956) asked female subjects to evaluate several products such as small appliances. Subjects then chose one of two similarly evaluated products as a gift and were asked to evaluate all the products again. The results indicate that subjects increased their evaluation of the chosen product and decreased their evaluation of the rejected product. This revaluation does not seem to be due to the mere possession of the product. Control subjects who were simply given a product did not change their evaluations. Later studies have improved on the methodology of Brehm's study and have generally supported this finding (e.g., Brock, 1963; Walster, 1964; Deutsch, Krauss, and Rosenau, 1962).

Cohen and Goldberg (1970) conducted an elaborate experimental test of the dissonance account of post-decision product revaluation. They distinguished between the decision and the actual consumption of a product. As a gift one group of subjects was allowed to choose between a national brand of coffee (prior information) and a larger container of a test brand (no prior information). They were then allowed to inspect but not consume samples of the two brands which, unknown to them, were the same. The results indicated a marginally significant tendency for subjects choosing the national brand to evaluate it more highly than a second group of subjects who had not received either brand as a gift; there was no such tendency for the test brand. As predicted by dissonance, choosing the national brand led to an increased evaluation whereas merely inspecting it did not. The authors tentatively conclude that prior information may affect product revaluation.

Subjects next were allowed to taste the two brands. By mixing an unpleasant additive in a cup of coffee, it was possible to have about half the subjects' choices confirmed (their choice tasted better) and the other subjects' choices disconfirmed. The brands were evaluated again and subjects indicated which they would probably buy. The results revealed that subjects positively revalued their choice if it were confirmed and devalued their choice if it were disconfirmed. The dissonance effect obtained for the first, non-consumption measure of revaluation approached significance only for the measure of purchase intention. These findings are valuable in that they demonstrate the interactive nature of dissonance effects within a consumer behavior context. Without prior information in the form of brand familiarity, subjects' decisions probably carried

little commitment and thus should not have aroused dissonance leading to the revaluation of the test brand.¹ In any event, the weakness of the dissonance effects, especially after the powerful confirmation-disconfirmation manipulation, should not be surprising, for as the authors note the product choice was not ego-involving. Future research along these lines would add considerably to our knowledge of how purchase decisions affect behavior.

In addition to revaluation a purchase decision may lead to other behaviors because of dissonance. Ehrlich et al. (1957), as noted earlier, found that after the purchase of a new car consumers read more ads for the chosen car than for other cars. This study also found, contrary to dissonance theory, that readership of ads for rejected cars was slightly greater than readership of ads for cars not considered in the purchasing decision. The new owners should have found these rejected car ads dissonance provoking. Mills (1965) showed, however, that ratings of product desirability are highly correlated with interest in ads. He argued therefore that the new car owners may have read the rejected car ads because the rejected cars were still more desirable than the other cars. Alternatively the owners may have been seeking faults in the rejected cars. Although Oshikawa (1969) does not find either of these explanations compelling, they do illustrate the myriad possible effects of dissonance. Other investigators have explored reactions to possibly dissonant new product information (e.g., Carter, Pyszka, and Guerrero, 1969; Straits, 1964). Freedman and Sears (1965), Mills (1968), and Donohew and Palmgreen (1971) provide recent reviews of how people tend to seek consistent information.

An excellent example of how intriguing a dissonance analysis of the effects of purchase behavior can be is presented by Doob, Carlsmith, Freedman, Landauer, and Tom (1969). The "introductory low-price offer" is a standard marketing technique. Conventional wisdom has it that the low price will attract buyers who will continue to purchase the product after the price is raised. Doob et al. advance a dissonance account disputing this conclusion. The higher the price a consumer can be induced to pay for a product, the greater will be his tendency to reduce any possible dissonance by convincing himself of the value of the product. By buying a product at an introductory low price, the consumer is less likely to convince himself it is a good product. To test this hypothesis, Doob et al. conducted several experiments with groups of stores matched on sales and randomly assigned to one of two conditions. One group of stores introduced a product such as mouthwash at a lower price for two weeks and then switched to the regular price while the other group sold the product at the regular price all along. During the first two weeks sales at the lower priced stores were understandably higher. However, after the price was raised, sales fell in these stores to an amount below that of the stores which had the higher price all along. Although other interpretations of the data are possible, these results still support the dissonance prediction that the lower price purchase decisions did not engender as much loyalty as the higher priced ones. Nor is this to say the exposure gained by introductory offers would not raise sales for some products. Even so, in this study a 50% increase in sales from the lower price was insufficient to overcome later the loyalty produced by the higher price.

Research on dissonance theory is voluminous. Our comments have been intended to point out the relevance of the theory to consumer behavior. Although much of the research on dissonance is complex and frequently conflicting, it should be remembered that the theory is intended to function less as a formal model than as a heuristic and language for deriving interesting empirical hypothesis. In fact, an entire style of research has grown up around the theory. While to some "much of the research on dissonance theory has studied behavior in artificial and often trivial situations (Cohen and Goldberg, 1970, p. 316)," in fact much of this research has been ingeneous in providing a context for behavior in which dissonance theory predictions could be tested experimentally. The real problem has been in tying down the theory. The very looseness which invites creative derivations renders the theory all but impossible to disprove. As Calder, Ross, and Insko (in press) put it, "At present cognitive dissonance theory is neither very cognitive nor very theoretical." In the face of all its ambiguities, however, dissonance theory remains a novel and creative framework for explaining the effects of behavior.

CONCLUSION

All three of the approaches to cognitive consistency have a place in current consumer behavior research. Balance theory is perhaps most relevant for understanding cognitive structure and predicting behavior where a more formal model is desired. Congruity theory is especially suited for analyzing the effects of communication sources such as the media on consumer product evaluations. Dissonance theory provides a rich framework for predicting the effects of behavior on other consumer processes.

Taken together, cognitive consistency theories add a valuable dimension to consumer research.

FOOTNOTES

¹There is an alternative, methodological interpretation: Subjects who chose the test brand may not have cared about its evaluation (a self selection problem).

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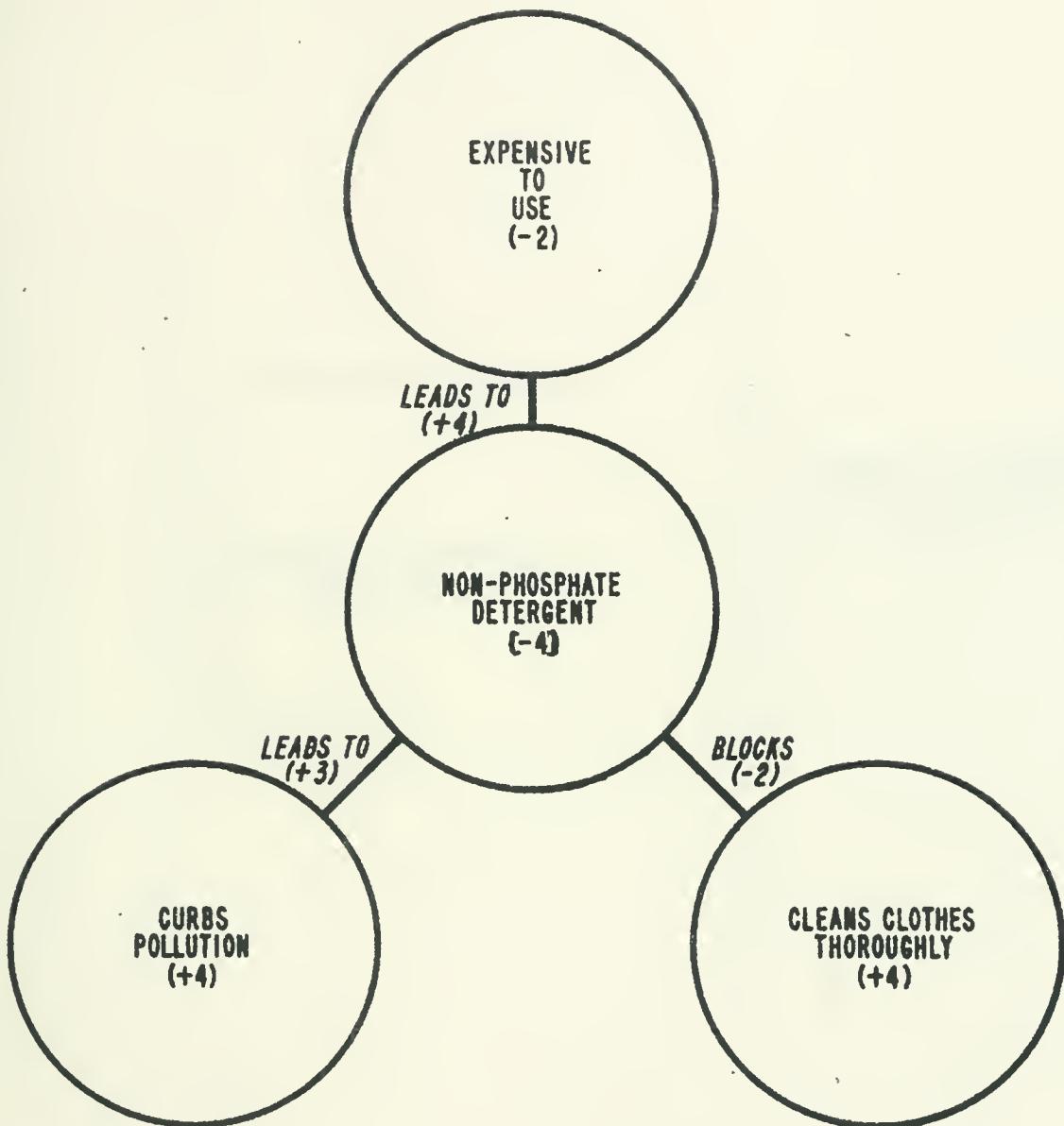
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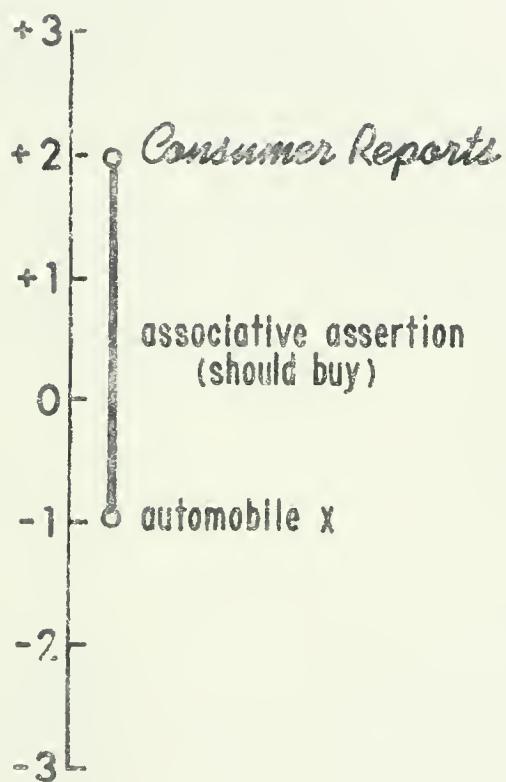
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FIGURE CAPTIONS

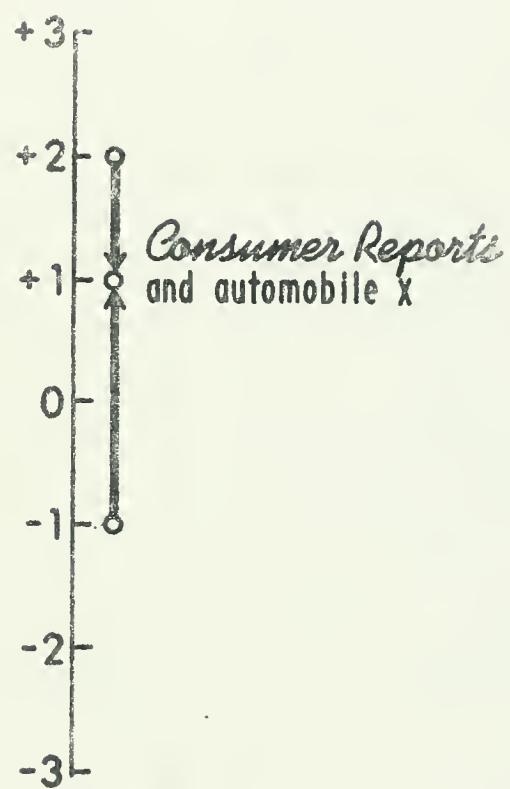
Figure 1. A hypothetical attitude structure for a product.

Figure 2. Attitude change produced by an associative assertion.





A.



B.





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